

## **DETAILED ACTION**

### **Notice to Applicant(s)**

1. This office action is responsive to the appeal brief filed on 5/26/09. In reviewing all the references cited, the last final office action on 2/2/09 is withdrawn, in order to eliminate some of the unnecessary references, the new ground of rejection is below.

Claims 1-3, 5-7, 10-14, 16-19, 23-25, 28-30, and 32-35 are pending.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-7, 10-14, 16-19, and 23-25, 28-30, and 32-35, are rejected under 35 U.S.C. 103(a) as being unpatentable over McClure et al. (6,539,303), in view of Weindorf (6762741).

As per claims 1, 12, and 19, McClure et al. disclose an integrated guidance system comprising: a position determination system adapted for determining a current position (see the abstract; column 2, lines 10-21; and column 4, lines 6-37), a differential global position determination system adapted for using a differential correction process to correct errors, wherein a differential correction may be stored in an electronic file and accessed later or may be applied in real time (see the abstract; column 4, lines 47-65; and columns 6-7, lines 5-11), a lightbar device adapted for providing a visual representation of a deviation of current position from a desired path to guide movement along desired path (see column 2, lines 41-44; column 4, lines 38-52; and column 5, lines 21-34), a data

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input device for scrolling, selecting, and editing operations, including configuring position determining system with a menu, and data input device comprises a first, second, and third button (see column 4, lines 19-37; and column 5, lines 35-55), a processor adapted for facilitating user interaction by integrating operation of position determination system, lightbar device, data input device, and display device (see column 4, lines 6-65), a housing enclosing position determination system, lightbar device, data input device, display device, and processor (see at least column 4, lines 20-38). McClure et al. do not disclose the housing has a wing shaped portion. However, McClure et al. disclose an integrated guidance system with a square shaped (figure 2). It would have been well known, and it would have been obvious to one of ordinary skill in the art that one can design a housing enclosing a guidance system with many different shapes such as a T shaped, a L shaped, a wing or fan shaped, or a S shaped, it just a design choice, because depend on how electrical components inside is layout, a housing need to design a shape that can enclose the whole system components. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of McClure et al. by combining different shaped of a housing enclosing an integrated guidance system depend on how the electrical link between various components inside the housing, in order to protect the electrical components, and therefore, the electrical connector or cable connector, and circuit board component will not vibrate or disengage relative to each other, in order to assist positioning of components, so as to enhance stability.

In addition, McClure et al. disclose first button, second button, and third button of data input device are positioned on a top surface of housing (see figure 2, on the button

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mounted on the surface of the housing, and has a top surface, because “top” is a relative position, depend on how to hold it or until when to mounted it in the vehicle) for convenient access by an operator of integrated guidance system, and wherein first button is larger than second button and third button to reduce the need for visual assistance by operator to distinguish first button, second button, and third button (see figure 2, input switch include a menu switch 12, an enter or execute switch 14, a decrement or down switch 16, and increment or up switch 18, a contour mode switch 20, a parallel mode switch 22, and a stop guidance switch 24; in figure 2, the contour switch 20 is larger than the menu switch 12, and enter or execute switch 14, the stop guidance switch 24 have a different size and shape, and larger than the menu switch 12; all these switch are positioned on the surface of housing). Furthermore, to modify the teach of McClure et al., Weindorf discloses the user interface is one or more knobs or push buttons and position in different place (see column 6, lines 8-18). It would have been obvious to one of ordinary skill in the art that, the data input devices included plurality of buttons, and depend on a design choice, the data input device can positioned in the top surface of housing, in order to easy access by the user and allow the user moves from one menu display to another by actuating the appropriate switch or button in the control interface. McClure et al. do not disclose display adapted to be viewable under various light condition. However, Weindorf discloses display device for displaying text, menu and graphics, said text, menu, and graphics adapted to be viewable under various light conditions, wherein an operator is able to vary the contrast and brightness of text, menu, and graphics by using buttons to interact with a user interface of integrated guidance system, and first, second, and third button facilitate interacting with a plurality of

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available functions displayed on display device (see columns 1-2, lines 30-20; column 3, lines 38-50; columns 5-6, lines 3-18; columns 6-7, lines 53-46; columns 9-10, lines 45-56; and column 15, lines 1-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of McClure et al. by combining display adapted to be viewable under various light condition enabling a user to adjust the display device in a manner to suit one or more viewing preferences.

As per claims 2-3, and 13-14, McClure et al. disclose position determination system comprises a GPS antenna and a GPS receiver, GPS antenna is positioned externally and separately relative to GPS receiver (see the abstract; and column 4, lines 19-37).

As per claims 5-7, and 15-17, McClure et al. disclose lightbar device comprises a plurality of lights that are adapted to emit a light pattern that indicates deviation, wherein plurality of lights are spaced apart and are aligned in a row, and wherein light pattern is formed by selectively illuminating particular ones of plurality of lights, plurality of lights comprises a plurality of LED's (see column 4, lines 38-65).

As per claims 10-11, and 23-24, McClure et al. discloses display device displays available functions in a menu driven manner that is user friendly, display device comprises a LCD (see column 5, lines 22-56).

As per claim 25, McClure et al. discloses a method of interacting with a guidance system, said method comprising: displaying on a display device of said guidance system a plurality of available functions in a menu-driven manner that is user friendly (see columns 4-5, lines 19-56), providing guidance system a data input device adapted for accessing and interacting with any one of said available functions with a minimum

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number of inputs and with minimum use of said inputs, wherein data input device enables scrolling, selecting, and editing operations, said data input device comprising a first button, a second button, and a third button that facilitate interacting with a plurality of available functions displayed on said display device (see column 4, lines 19-37; and column 5, lines 35-56), wherein display device, guidance system, and data input device are integrated in a housing (see figure 2, and column 4, lines 20-38). McClure et al. do not disclose the housing has a wing shaped portion. However, McClure et al. disclose an integrated guidance system with a square shaped (figure 2). It would have been well known, and it would have been obvious to one of ordinary skill in the art that one can design a housing enclosing a guidance system with many different shapes such as a T shaped, a L shaped, a wing or fan shaped, or a S shaped, it just a design choice, because depend on how electrical components inside is layout, a housing need to design a shape that can enclose the whole system components. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of McClure et al. by combining different shaped of a housing enclosing an integrated guidance system depend on how the electrical link between various components inside the housing, in order to protect the electrical components, and therefore, the electrical connector or cable connector, and circuit board component will not vibrate or disengage relative to each other, in order to assist positioning of components, so as to enhance stability.

In addition, McClure et al. disclose first button, second button, and third button of data input device are positioned on a top surface of housing (see figure 2, on the button mounted on the surface of the housing, and has a top surface, because "top" is a relative

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position, depend on how to hold it or until when to mounted it in the vehicle) for convenient access by an operator of integrated guidance system, and wherein first button is larger than second button and third button to reduce the need for visual assistance by operator to distinguish first button, second button, and third button (see figure 2, input switch include a menu switch 12, an enter or execute switch 14, a decrement or down switch 16, and increment or up switch 18, a contour mode switch 20, a parallel mode switch 22, and a stop guidance switch 24; in figure 2, the contour switch 20 is larger than the menu switch 12, and enter or execute switch 14, the stop guidance switch 24 have a different size and shape, and larger than the menu switch 12; all these switch are positioned on the surface of housing). Furthermore, to modify the teach of McClure et al., Weindorf discloses the user interface is one or more knobs or push buttons and position in different place (see column 6, lines 8-18). It would have been obvious to one of ordinary skill in the art that, the data input devices included plurality of buttons, and depend on a design choice, the data input device can positioned in the top surface of housing, in order to easy access by the user and allow the user moves from one menu display to another by actuating the appropriate switch or button in the control interface. McClure et al. do not disclose display adapted to be viewable under various light condition. However, Weindorf discloses display device for displaying text, menu and graphics, said text, menu, and graphics adapted to be viewable under various light conditions, wherein an operator is able to vary the contrast and brightness of text, menu, and graphics by using buttons to interact with a user interface of integrated guidance system, and first, second, and third button facilitate interacting with a plurality of

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available functions displayed on display device (see columns 1-2, lines 30-20; column 3, lines 38-50; columns 5-6, lines 3-18; columns 6-7, lines 53-46; columns 9-10, lines 45-56; and column 15, lines 1-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of McClure et al. by combining display adapted to be viewable under various light condition enabling a user to adjust the display device in a manner to suit one or more viewing preferences.

As per claim 28, McClure et al. discloses a position determination system for determining a current position (see the abstract; column 2, lines 10-21; and column 4, lines 6-37), a lightbar device adapted for providing a visual representation of a deviation of current position from a desired path to guide movement along desired path (see column 2, lines 41-44; column 4, lines 38-52; and column 5, lines 21-34)

As per claims 29-30, McClure et al. disclose position determination system comprises a GPS antenna and a GPS receiver, GPS antenna is positioned externally and separately relative to GPS receiver (see the abstract; and column 4, lines 19-37).

As per claims 32-34, McClure et al. discloses lightbar device comprises a plurality of lights that are adapted to emit a light pattern that indicates deviation, wherein plurality of lights are spaced apart and are aligned in a row, and wherein light pattern is formed by selectively illuminating particular ones of plurality of lights, plurality of lights comprises a plurality of LED's (see column 4, lines 38-65).

As per claim 35, McClure et al. discloses display device comprises a LCD (see column 5, lines 22-56).

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**Remarks**

4. Applicant's arguments filed 5/26/09 have been fully considered. Upon updated search, the new ground of rejection as above.

Among all the references cited in the last final office action, only McClure et al. ('303), and Weindorf ('741) in this rejection as above. McClure et al., and Weindorf still reads the claimed invention with the reasons as above. There are no new references.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-W (in a first week of a bi-week), and T-R (in a second week of bi-week) from 7:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi H. Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dalena Tran/  
Primary Examiner, Art Unit 3664  
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